



Complete Summary

TITLE

Percutaneous transluminal coronary angioplasty (PTCA): volume.

SOURCE(S)

AHRQ quality indicators. Guide to inpatient quality indicators: quality of care in hospitals -- volume, mortality, and utilization [version 2.1, revision 4]. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2004 Dec 22. 183 p.(AHRQ Pub; no. 02-R0204).

Measure Domain

PRIMARY MEASURE DOMAIN

Structure

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

SECONDARY MEASURE DOMAIN

Outcome

Brief Abstract

DESCRIPTION

This measure is used to assess the raw volume of percutaneous transluminal coronary angioplasty (PTCA) (surgical procedure).

As a volume indicator, PTCA is a proxy measure for quality and should be used with other indicators.

RATIONALE

About 36% of personal health care expenditures in the United States go towards hospital care, and the rate of growth in spending for hospital services has begun to increase following a half a decade of declining growth. Simultaneously, concerns about the quality of health care services have reached a crescendo with the Institute of Medicine's series of reports describing the problem of medical errors and the need for a complete restructuring of the health care system to

improve the quality of care. Policymakers, employers, and consumers have made the quality of care in U.S. hospitals a top priority and have voiced the need to assess, monitor, track, and improve the quality of inpatient care.

Percutaneous transluminal coronary angioplasty (PTCA) is a relatively common procedure that requires proficiency with the use of complex equipment, and technical errors may lead to clinically significant complications. Higher volumes have been associated with better outcomes (e.g., fewer deaths and post-procedural coronary artery bypass grafts [CABGs]), which represent better quality.

PRIMARY CLINICAL COMPONENT

Percutaneous transluminal coronary angioplasty; procedure volume

DENOMINATOR DESCRIPTION

This measure applies to providers of percutaneous transluminal coronary angioplasty (PTCA) (one provider at a time).

NUMERATOR DESCRIPTION

Discharges, age 40 years and older, with International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) codes* of 3601, 3602, 3605, or 3606 in any procedure field. Exclude patients with Major Diagnostic Category (MDC) 14 (pregnancy, childbirth, and puerperium), and MDC 15 (newborns and other neonates).

*Refer to Appendix A of the original measure documentation for details.

Evidence Supporting the Measure

EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence
- One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Variation in capacity

EVIDENCE SUPPORTING NEED FOR THE MEASURE

AHRQ quality indicators. Guide to inpatient quality indicators: quality of care in hospitals -- volume, mortality, and utilization [version 2.1, revision 4]. Rockville

(MD): Agency for Healthcare Research and Quality (AHRQ); 2004 Dec 22. 183 p. (AHRQ Pub; no. 02-R0204).

State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

External oversight/State government program
Internal quality improvement
Quality of care research

Application of Measure in its Current Use

CARE SETTING

Hospitals

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Physicians

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Single Health Care Delivery Organizations

TARGET POPULATION AGE

Does not apply to this measure

TARGET POPULATION GENDER

Does not apply to this measure

STRATIFICATION BY VULNERABLE POPULATIONS

Does not apply to this measure

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

Percutaneous transluminal coronary angioplasty (PTCA) is an increasingly common procedure (16.7 per 10,000 persons in 1997) and is measured accurately with discharge data.

EVIDENCE FOR INCIDENCE/PREVALENCE

AHRQ quality indicators. Guide to inpatient quality indicators: quality of care in hospitals -- volume, mortality, and utilization [version 2.1, revision 4]. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2004 Dec 22. 183 p.(AHRQ Pub; no. 02-R0204).

ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

BURDEN OF ILLNESS

Unspecified

UTILIZATION

Unspecified

COSTS

Unspecified

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Getting Better

IOM DOMAIN

Effectiveness

Data Collection for the Measure

CASE FINDING

Does not apply to this measure

DENOMINATOR SAMPLING FRAME

Does not apply to this measure

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions

This measure applies to providers of percutaneous transluminal coronary angioplasty (PTCA) (one provider at a time).

Exclusions
Unspecified

DENOMINATOR (INDEX) EVENT

Does not apply to this measure

DENOMINATOR TIME WINDOW

Does not apply to this measure

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions

Discharges, age 40 years and older, with International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) codes* of 3601, 3602, 3605, or 3606 in any procedure field.

*Refer to Appendix A of the original measure documentation for details.

Exclusions

Exclude patients with Major Diagnostic Category (MDC) 14 (pregnancy, childbirth, and puerperium), and MDC 15 (newborns and other neonates).

NUMERATOR TIME WINDOW

Fixed time period

DATA SOURCE

Administrative data

LEVEL OF DETERMINATION OF QUALITY

Does not apply to this measure

OUTCOME TYPE

Proxy for Outcome

PRE-EXISTING INSTRUMENT USED

Unspecified

Computation of the Measure

SCORING

Count

INTERPRETATION OF SCORE

Better quality is associated with a higher score

ALLOWANCE FOR PATIENT FACTORS

Does not apply to this measure

STANDARD OF COMPARISON

External comparison at a point in time
External comparison of time trends
Internal time comparison
Prescriptive standard

PRESCRIPTIVE STANDARD

Benchmark:

- Threshold 1: 200 or more procedures per year
- Threshold 2: 400 or more procedures per year

EVIDENCE FOR PRESCRIPTIVE STANDARD

AHRQ quality indicators. Guide to inpatient quality indicators: quality of care in hospitals -- volume, mortality, and utilization [version 2.1, revision 4]. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2004 Dec 22. 183 p.(AHRQ Pub; no. 02-R0204).

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

Each potential quality indicator was evaluated against the following six criteria, which were considered essential for determining the reliability and validity of a quality indicator: face validity, precision, minimum bias, construct validity, fosters real quality improvement, and application. The project team searched Medline for articles relating to each of these six areas of evaluation. Additionally, extensive empirical testing of all potential indicators was conducted using the 1995-97 Healthcare Cost and Utilization Project (HCUP) State Inpatient Databases (SID) and Nationwide Inpatient Sample (NIS) to determine precision, bias, and construct validity. Table 2 in the original measure documentation summarizes the results of the literature review and empirical evaluations on the Inpatient Quality Indicators. Refer to the original measure documentation for details.

EVIDENCE FOR RELIABILITY/VALIDITY TESTING

AHRQ quality indicators. Guide to inpatient quality indicators: quality of care in hospitals -- volume, mortality, and utilization [version 2.1, revision 4]. Rockville

(MD): Agency for Healthcare Research and Quality (AHRQ); 2004 Dec 22. 183 p.(AHRQ Pub; no. 02-R0204).

Identifying Information

ORIGINAL TITLE

Percutaneous transluminal coronary angioplasty volume (IQI 6).

MEASURE COLLECTION

[Agency for Healthcare Research and Quality \(AHRQ\) Quality Indicators](#)

MEASURE SET NAME

[Agency for Healthcare Research and Quality \(AHRQ\) Inpatient Quality Indicators](#)

DEVELOPER

Agency for Healthcare Research and Quality

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

2002 Jun

REVISION DATE

2004 Dec

MEASURE STATUS

Please note: This measure has been updated. The National Quality Measures Clearinghouse is working to update this summary.

SOURCE(S)

AHRQ quality indicators. Guide to inpatient quality indicators: quality of care in hospitals -- volume, mortality, and utilization [version 2.1, revision 4]. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2004 Dec 22. 183 p.(AHRQ Pub; no. 02-R0204).

MEASURE AVAILABILITY

The individual measure, "Percutaneous Transluminal Coronary Angioplasty Volume (IQI 6)," is published in "AHRQ Quality Indicators. Guide to Inpatient Quality

Indicators: Quality of Care in Hospitals -- Volume, Mortality, and Utilization." An update of this document is available from the [Quality Indicators](#) page at the Agency for Healthcare Research and Quality (AHRQ) Web site.

For more information, please contact the QI Support Team at support@qualityindicators.ahrq.gov.

COMPANION DOCUMENTS

The following are available:

- AHRQ quality indicators. Inpatient quality indicators: software documentation [version 2.1, revision 4] - SPSS. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2004 Dec 22. 45 p. (AHRQ Pub.; no. 02-R208). This document is available from the [Agency for Healthcare Research and Quality \(AHRQ\) Web site](#).
- AHRQ quality indicators. Inpatient quality indicators: software documentation [version 2.1, revision 4] - SAS. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2004 Dec 22. 45 p. (AHRQ Pub.; no. 02-R208). This document is available from the [AHRQ Web site](#).
- Remus D, Fraser I. Guidance for using the AHRQ quality indicators for hospital-level public reporting or payment. Rockville (MD): Agency for Healthcare Research and Quality; 2004 Aug. 24 p. This document is available from the [AHRQ Web site](#).
- AHRQ inpatient quality indicators - interpretive guide. Irving (TX): Dallas-Fort Worth Hospital Council Data Initiative; 2002 Aug 1. 9 p. This guide helps you to understand and interpret the results derived from the application of the Inpatient Quality Indicators software to your own data and is available from the [AHRQ Web site](#).
- UCSF-Stanford Evidence-based Practice Center. Davies GM, Geppert J, McClellan M, et al. Refinement of the HCUP quality indicators. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2001 May. (Technical review; no. 4). This document is available from the [AHRQ Web site](#).

NQMC STATUS

This NQMC summary was completed by ECRI on August 19, 2004. The information was verified by the measure developer on October 13, 2004. This NQMC summary was updated by ECRI on March 4, 2005. The information was verified by the measure developer on April 22, 2005.

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